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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,804	11/14/2001	Karl Mannemann	WEI0029	3729
832	7590	01/04/2005	EXAMINER	
BAKER & DANIELS 111 E. WAYNE STREET SUITE 800 FORT WAYNE, IN 46802			HALPERN, MARK	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/990,804	<b>Applicant(s)</b> MANNEMANN ET AL.	
	<b>Examiner</b> Mark Halpern	<b>Art Unit</b> 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 October 2004 and 08 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-8, 10, 14-16 and 20-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8, 10, 14-16 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 23-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1) Acknowledgement is made of Amendment received 10/4/2004. Applicants cancel claim 11, and offer new claims 23-34, for consideration.

Acknowledgement is made of Amendment received 11/8/2004. Applicants correct claims status identifiers.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claim 23 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rough (3,988,138). Rough discloses a homogenized molten glass made in a closed furnace chamber. Electrodes provide energy to the molten glass into the chamber from the bottom of the chamber and are located below the melt surface. The chamber also includes stirrer. Glass-

making materials are introduced into a vortex of the stirrer, which causes good stirring of the molten glass and good mixing of the molten glass with the newly introduced materials (col. 4, line 45 to col.5, line 58, and Figures 4, 5).

In the event any differences can be shown for the product of the product-by-process claim 23, as opposed to the product taught by the reference Rough, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results; see also In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

3) Claim 34 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rough (3,988,138). Rough discloses a homogenized molten glass made in a closed furnace chamber. Electrodes provide energy to the molten glass into the chamber from the bottom of the chamber and are located below the melt surface. The chamber also includes stirrer. Glass-making materials are introduced into a vortex of the stirrer, which causes good stirring of the molten glass and good mixing of the molten glass with the newly introduced materials (col. 4, line 45 to col.5, line 58, and Figures 4, 5).

In the event any differences can be shown for the product of the product-by-process claim 34, as opposed to the product taught by the reference Rough, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results; see also In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

7) Claims 24-25, 27-29, 32, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rough (3,988,138).

Claim 24: Rough discloses a method for melting glass-making materials into homogenized molten glass. In the process glass melting materials are fed into chamber C' of furnace 50 by means of a hopper 55 and screw 56. The furnace chamber is an enclosed chamber by means of top wall 54. Electrodes 58-61 provide energy to the molten glass, the electrodes extend into the chamber from the bottom of the chamber and are located below the melt surface. The chamber also includes stirrer 62 mounted on shaft 63 and driven by gear box 70 and motor 71 located above the chamber. When the stirrer is rotated the molten glass surface takes on a configuration as shown in Figure 4 defining a concave surface or vortex. The glass-making materials are introduced into this vortex of the stirrer 62, which causes good stirring of the molten glass and good mixing of the molten glass with the newly introduced materials (col. 4, line 45 to col.5, line 58, and Figures 4, 5). Rough is silent on the use of a well-homogenized mixture of highly pure raw materials, however, it would have been obvious, to one skilled in the art at the time the invention was made, to use a well-homogenized mixture of highly pure raw materials in the Rough process, because doing so would increase the versatility of the Rough process and permit production of glass highly transmissive in the UV range in addition to the glass ordinarily produced.

Claims 25, 28, 32: the melt bath temperature of 2000 to 2300 °F, which equates to 1093 to 1260 °C, is disclosed (col. 4, lines 1-10).

Claim 27: batch process mode operation is disclosed (col. 3, lines 60-68).

Claim 29: the stirring occurs at 50 times per minute (col. 3, lines 57-59).

8) Claims 26, 30-31, 33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rough in view of Enomoto (5,320,985).

Claim 26: Rough is applied as above for claim 24, Rough fails to disclose highly transmissive glass types as Flint glass types with an Abbe coefficient less or equal to 50. Enomoto discloses an optical flint type glass of Abbe number between 57 and 40 (Enomoto, col. 1, lines 5-10). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Rough and Enomoto, because the combination would provide for a product of Rough of optical glass of improved light transmissivity and good chemical durability as disclosed by Enomoto (Enomoto, col. 1, lines 25-30, and col. 3, lines 6-11).

Claim 30: batch process mode operation is disclosed (Rough, col. 3, lines 60-68).

Claim 31: the melt bath temperature of 2000 to 2300 °F, which equates to 1093 to 1260 °C, is disclosed (Rough, col. 4, lines 1-10).

Claim 33: the stirring occurs at 50 times per minute (Rough, col. 3, lines 57-59).

### ***Allowable Subject Matter***

9) Claims 6-8, 10, 14-16, 20-22, are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating allowable subject matter is that the cited prior art does not show a process for making glasses highly transmissive in the UV range,

where in said process the melting materials on the melt surface are uniformly intermixed and sub-mixed into the melt and the space above the melt surface has a temperature in the range claimed (claim 21).

### ***Response to Amendment***

10) Claim 11 rejection under 35 U.S.C. 101, and 35 U.S.C. 112, second paragraph, is withdrawn in view of the cancelled claim.

11) Applicants allege that claim 24 is the same as claim 21, except for the space above the melt surface being of claimed temperature, thus claim 24 is allowable.

The reason for claim 21 being allowable is the claimed temperature in the space above the melt.

### ***Conclusion***

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1731

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mark Halpern